

Title (en)  
Positioning apparatus and positioning method

Title (de)  
Positionierungsvorrichtung und Positionierungsverfahren

Title (fr)  
Appareil et procédé de positionnement

Publication  
**EP 2426514 B1 20160120 (EN)**

Application  
**EP 11179858 A 20110902**

Priority  
JP 2010196306 A 20100902

Abstract (en)  
[origin: EP2426514A1] A positioning apparatus includes: a first measuring section to directly measuring its own present position; a second measuring section to measure an azimuth and a movement of a user; a movement method judging section to judge a movement method of the user based on the measurement result by the second measuring section; an azimuth specifying section to specify a movement azimuth of the user based on the measurement result by the second measuring section; a movement speed calculating section to calculate an average movement speed in a period where the movement method of the user is judged to be a movement state by car; and a position calculating section to obtain a movement position by integrating a movement distance into the specified movement azimuth at the average movement speed to reference position information obtained by the first measuring section when the user is in the movement state by car.

IPC 8 full level  
**G01S 19/49** (2010.01); **G01S 19/34** (2010.01)

CPC (source: EP US)  
**G01C 21/005** (2013.01 - EP US); **G01C 21/1654** (2020.08 - EP US); **G01S 19/34** (2013.01 - EP US)

Cited by  
CN103454663A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2426514 A1 20120307**; **EP 2426514 B1 20160120**; CN 102385050 A 20120321; CN 102385050 B 20131023; JP 2012052937 A 20120315;  
JP 5494364 B2 20140514; US 2012059581 A1 20120308; US 8855928 B2 20141007

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**EP 11179858 A 20110902**; CN 201110258373 A 20110902; JP 2010196306 A 20100902; US 201113224007 A 20110901